annealing the second amorphous TaON thin film to form a multilayer TaON dielectric film; and

forming an upper electrode over the TaON dielectric film.

2. (Amended) The method according to claim 1, wherein forming the lower electrode further comprises one of:

1) forming a single conductive layer, the single conductive layer being formed from at least one material selected from a group consisting of doped polysilicon and metal, and

2) forming a plurality of conductive layers, the plurality of conductive layers comprising at least two layers, the plurality of conductive layers being formed from at least one material selected from a group consisting of doped polysilicon and metal; and

further wherein forming the upper electrode further comprises one of:

1) forming a single conductive layer, the single conductive layer being formed from at least one material selected from a group consisting of doped polysilicon and metal, and

2) forming a plurality of conductive layers, the plurality of conductive layers comprising at least two layers, the plurality of conductive layers being formed from at least one material selected from a group consisting of doped polysilicon and metal.

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19. (Amended) A method for fabricating capacitors for semiconductor devices, comprising:

forming a lower electrode on a semiconductor substrate;

forming a first amorphous TaON thin film over the lower electrode;

annealing the first amorphous TaON thin film in an NH_3 atmosphere;

forming a second amorphous TaON thin film;

annealing the second amorphous TaON thin film a first time;

annealing the second amorphous TaON thin film a second time, thereby forming a TaON dielectric film having a multi-layer structure; and

forming an upper electrode over the TaON dielectric film.

20. (Amended) A method for fabricating capacitors for semiconductor devices, comprising:

forming a lower electrode on a semiconductor substrate;